

3rd International Symposium on Resilient Cyber Systems

Statement of Themes: The overwhelming majority of engineered systems in use today are highly dependent on computation and communication resources. This includes systems at all levels, ranging from vehicles to large-scale industrial systems and national critical infrastructures. The resilience of the computational systems and infrastructures underlying these technologies is of great importance for mission continuity and success. Resilience, in this context, is understood as the ability of a system to anticipate, withstand, recover, and evolve from cyber attacks and failures. In this symposium we will focus on the topic of resilience of cyber systems. Among others, the concepts of cyber awareness, anticipation, avoidance, protection, detection, and response to cyber attacks will be promoted and will help set the tone of the event. A better understanding and development of these concepts and its supporting technologies will help provide some of the key underlying capabilities for the design and development of resilient cyber systems.

Submission Schedule

- Paper Submission Due: April 6, 2015
- Notification of Paper Acceptance: June 15, 2015
- Final Paper Submission: July 6, 2015

Cost

- \$495
- \$445 for registration by July 12, 2015
- \$50 discount for IEEE IES members
- \$50 discount for HFES members
- Half price registration for registered students

Venue/Accommodations

Hyatt Regency Philadelphia 201 S Columbus Blvd, Philadelphia, PA 19106 Tel: 215.928.1234 • Fax: 215.521.6543 Reservations

Schedule

- Day 1: Tutorial & Workshop Sessions
- Day 2: Paper Sessions
- Day 3: Panel Discussions

General Chairs

- Marco Carvalho, Florida Institute of Technology <u>mcarvalho@fit.edu</u>
- Michael Atighetchi, BBN Technologies matighet@bbn.com
- Annarita Giani, General Electric annarita.giani@gmail.com

Organizing Chair

 Jodi Grgich, Idaho National Laboratory jodi.grgich@inl.gov

Call for Papers

Paper submission will be handled through the symposium website listed below. Please refer to this website for the latest information.

- Full Papers: limited to 6 double column pages in a font no smaller than 10-points per IEEE format quidance.
- Work-in-Progress and Industry practice: limited to 4 double column pages, in a font no smaller than 10-points per IEEE format guidance. Work-in-Progress papers comprise up to 4 double-column pages, describing research that has not yet produced the results required for a regular paper, but that due its novelty and potential impact deserves to be shared with the community at an early stage. Accepted papers and Work-in-Progress papers will be published in the conference proceedings.

Topical Areas (including, but not limited to)

- Resilient Cyber Frameworks and Architectures: multi-agent systems for monitoring and control, supervisory control and data acquisition, distributed sensemaking and coordination
- Moving Target Defense: Moving target defense technologies, evaluation metrics, visualization and command and control capabilities
- Human Machine Interaction and Cyber Visualization: cognitive modeling, applied machine learning, visualization concepts and technologies
- Human Systems Design: environmental configuration, tailored presentation
- Sensor Architectures: embedded modeling and analysis, intelligence and agents, wireless control
 and determinism, multi-parameter integration and diversity
- Human and Systems Behavior: behavior modeling, attacker co-evolution, deception
 Data Fusion: data reduction, security characterization, data diversity, anomaly detection
- Computational Intelligence: machine learning, neural networks, fuzzy logic, evolutionary computation, Bayesian belief networks
- Resilient Cyber-physical power and energy systems: real-time communication, protection, control, resilience, reliability, sustainability, efficiency.

Keynote Speakers

Edward Rhyne, Department of Homeland Security

http://resilienceweek2015.inl.gov/CyberSystems/







